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PTO/SB/21 (08-00)
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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/064,207
Filing Date	06/21/2002
First Named Inventor	Lin-Kai Bu
Group Art Unit	2871
Examiner Name	
Total Number of Pages in This Submission: 16	Attorney Docket Number: HMOP0001USA

ENCLOSURES *(check all that apply)*

- [x] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment / Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [x] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Assignment Papers *(for an Application)*
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
- [ ] After Allowance Communication to Group
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
- [ ] Proprietary Information
- [ ] Status Letter
- [ ] Other Enclosure(s) *(please identify below)*:

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	WINSTON HSU
Signature	Winston Hsu
Date	11/20/2002

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date:

Typed or printed name			
Signature		Date	

PTO/SB/17 (10-01)
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FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT ($) 0.00

Complete if Known	
Application Number	10/064,207
Filing Date	06/21/2002
First Named Inventor	Lin-Kai Bu
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Group Art Unit	2871
Attorney Docket No.	HMOP0001USA

METHOD OF PAYMENT

1. ☑ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:
   - Deposit Account Number: 50-0801
   - Deposit Account Name: North America International Patent Office
   - ☑ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
   - ☐ Applicant claims small entity status. See 37 CFR 1.27
2. ☐ **Payment Enclosed:** ☐ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
101	740	201	370	Utility filing fee	
106	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	

SUBTOTAL (1) ($) 0.00

2. EXTRA CLAIM FEES

	Extra Claims		Fee from below	Fee Paid
Total Claims		-20** =		x =
Independent Claims		- 3** =		x =
Multiple Dependent				=

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent claim, if not paid
109	84	209	42	** Reissue independent claims over original patent
110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for *ex parte* reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,280	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Processing fee under 37 CFR 1.17(q)	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid **SUBTOTAL (3)** ($) 0.00

SUBMITTED BY				Complete *(if applicable)*	
Name *(Print/Type)*	WINSTON HSU	Registration No. *(Attorney/Agent)*	41,526	Telephone	886-2-8923-7350
Signature	Winston Hsu			Date	11/20/2002

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Lin-Kai Bu
Filing Date: 06/21/2002
Docket No.: HMOP0001USA
Serial No.: 10/064,207
Art unit: 2871

Title: METHOD AND RELATED APPARATUS FOR DRIVING AN LCD MONITOR

To: Assistant Commissioner for Patents
Washington, D.C. 20231

Subject: Information disclosure statement under 37C.F.R.§1.56

Dear Sir:

This is an Information Disclosure Statement in accordance with the duty to disclose information material to patentability under 37 C.F.R. §1.56. Applicant wishes to make of record the document listed on the accompanying form PTO/SB/08. It is respectfully requested that the examiner initials the cited reference on the form and that it be made of record in the application and that a copy of the initialed form be sent to the applicant with the next communication from the examiner.

Since the IDS is filed before the mailing date of a first Office action on the merits, consideration of the information disclosure statement is hereby requested according to 37C.F.R.§1.97(b). The prior art patent contained in the information disclosure statement was cited in communications

from the Taiwan Intellectual Property Office on August 19, 2002. Applicant sincerely request the examiner to consider the item contained in the information disclosure statement.

According to the requirement set forth in 37 C.F.R.§1.98 and M.P.E.P. 609 (Rev.1, Feb. 2000), applicant is submitting a copy of the cited reference (Taiwan Patent No. 397,966) and a concise explanation of the cited reference hereinafter.

TP No. 397,966 teaches to an improved driving circuit with low power consumption and a precise output voltage. The driving circuit for an LCD monitor includes a voltage generator, a selecting circuit, and an output circuit. The voltage generator is used to generate a plurality of driving voltages. The selecting circuit selects one driving voltage out of the driving voltages generated from the voltage generator, and outputs the selected driving voltage to the output circuit. The output circuit is connected to a data line loading (a pixel for example), and is used to drive voltage level of the data line toward the selected driving voltage. The output circuit has an input port for receiving the selected driving voltage, an output port, a first voltage source, a second voltage source, a first switch connected between the input port and the output port, a second switch connected between the output port and the second voltage source, and at least a transistor.

Fig.5 is a principal schematic diagram of the improved driving circuit. A drain of the transistor 11, which is a PMOS transistor, is connected to the first voltage source (grounding voltage), a gate of the transistor is connected to the input port 8, and a source of the transistor is connected to the output port 9 that is connected to the data line loading 5. During a first period, the selecting circuit 3 is disabled, and the first switch 12 and the second switch 13 are switched on. Therefore, the transistor 11 is turned off, and the second voltage source drives the data line loading 5. That is, the output voltage of

the output port 9 is pre-charged to Vcc. During a second period, the selecting circuit 3 is enabled to output the selected driving voltage V1 to the input port 8. In addition, the first switch 12 and the second switch 13 are switched off. The data line loading 5, therefore, starts discharging through the transistor 11. The voltage level of output port 9 is lowered from Vcc to (V1-Vt) wherein Vt is a threshold voltage of the transistor 11. During a third period, the selecting circuit 3 remains enabled for outputting the selected driving voltage V1 to the input port 8, and the second switch remains off. But, the first switch is switched on so that the output voltage of the output port 9 becomes the selected driving voltage V1.

The operation of other embodiments of the cited art is similar to the above-mentioned process. The kernel feature of the improved driving circuit is using the transistor to quickly drive the output voltage toward the selected driving voltage and using the first switch to drive the output voltage directly by the selected driving voltage. In other words, the transistor has great driving efficiency but poor driving accuracy. Therefore, the first switch transmitting the selected driving voltage is used to compensate the transistor for acquiring a precise output voltage. Briefly summarized, the cited art fails to teach or suggest that the switches in the output circuit can be used to average output voltages for different data line loadings driven by the same selected driving voltage.

Respectfully Submitted,

Winston Hsu Date: 4/30/2002

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